NEOTROPICAL MIGRATORY BIRDS

Introduction

The United States portion of the Northern Rockies Bird Conservation Region has 28 species listed as "Birds of Conservation Concern" (USFWS 2002; Exhibit Rn-1; Table 3-92). These species are migratory and non-migratory birds that are not designated as federally threatened or endangered that represent the highest conservation priorities. Two of these are sensitive wildlife species on the Flathead National Forest, and three are listed as old-growth associates (Exhibit Q-4). Some are not known or suspected to use habitats on the Flathead National Forest.

Table 3-92. Birds of Conservation Concern in the Flathead Basin (See Exhibit Rn-1 for more information).

Species	Status *	Relative Abundance in the Flathead
Ferruginous Hawk	t	Rare
Golden Eagle	B	Uncommon
Peregrine Falcon	B; Sens	Rare
Prairie Falcon	t	Rare
Yellow Rail	t	Rare
American Golden-Plover	t	Rare
Snowy Plover	No record	(NA)
Mountain Plover	No record	(NA)
Solitary Sandpiper	t	Uncommon
Upland Sandpiper	t	Rare
Whimbrel	t	Rare
Long-billed Curlew	B	Uncommon
Marbled Godwit	t	Rare
Wilson's Phalarope	B	Common
Yellow-billed Cuckoo	No record	(NA)
Flammulated Owl	B; Sens; OG	Occasional
Black Swift	B	Rare
Lewis's Woodpecker	B; OG	Occasional
Williamson's Sapsucker	b	Uncommon
Red-naped Sapsucker	B	Common
White-headed Woodpecker	t	Rare
Loggerhead Shrike	t	Occasional
Pygmy Nuthatch	B; OG	Common
Virginia's Warbler	No record	(NA)
Brewer's Sparrow	b	Uncommon
McCown's Longspur	No record	(NA)

*** Status:** B – Direct evidence of breeding; b – Indirect evidence of breeding; t – No evidence of breeding; Sens – Flathead National Forest Sensitive Species; OG – Old growth Associated Species

Two habitats are especially important to bird species. Riparian habitat, because of the availability of water and variety of plant communities, supports elevated numbers and

diversity of bird species. Old growth habitat has the highest density and diversity of birds nesting in tree cavities (McClelland and Schmidt 1995). Snags, broken-topped live trees, downed logs, and other woody material are required by a wide variety of these species for nesting, denning, roosting, perching, feeding, and cover.

The USFS Northern Region Songbird Monitoring Program (Hutto 1995a) has provided some data on population trends, habitat relationships, and effects from past management activities for Neotropical migratory birds breeding in the western United States. These have been combined to determine population trends on a continental, regional, statewide, or physiographic region scale.

Bird populations that breed in the western United States appear to be suffering from forest fragmentation in breeding habitat (Hejl et al., 1995), and harvest and excessive tree mortality further contributes to short-term fragmentation (Rotenberry et al., 1995). Problems associated with forest fragmentation include overall habitat loss, increase in high-contrast edge habitat and edge effects, isolation effects, and increased vulnerability to predators (Finch 1991; Turcotte and Desrochers, 2003). Moreover, brown-headed cowbirds benefit from forest fragmentation, particularly where livestock graze within about five miles, and this species has a strong negative impact on many neotropical migratory birds. However, when sufficient downed woody material, residual understory trees, and windfirm live trees and snags are available, timber harvest can maintain adequate habitat values. For more information, see Exhibit Rn-2.

Effects on Neotropical Migratory Birds relate directly to five issues discussed in Chapter 1. These are Issue #1, “Wildlife security”; Issue #2, "Effects on existing old growth habitat and on late-seral/structural stage forests"; Issue #3, "Landscape dynamics--Connectivity"; Issue #4, "Landscape dynamics--Seral/structural stage patch size and shapes"; and Issue #5, “Water quantity and fine sediment deposition.” The issue indicators used involve: acres of harvest or fire in different types of old growth; the formation of high-contrast edge; road construction and road use effects; amounts and spatial distribution of old growth and of late-seral/structural stage patches; forested connectivity; and harvest, roading, and water flow per tributary. These issues were instrumental in the development of Alternative D (Exhibit E-2). The No Action Alternative could also affect their habitat across the Logan Creek area through changes in the probability for intense wildland fire. The action alternatives would remove vegetation used as nesting and feeding substrates and as cover. Proposed road access changes would reduce vulnerability of nesting structures to firewood cutting.

Differences Between the DEIS and FEIS

This Neotropical Migratory Birds section of the FEIS differs from the same section in the DEIS in that analysis for the new Alternative F was included. A new table was included that lists birds of conservation concern in the Flathead Basin, along with their breeding status and relative abundance. Additional information was added about habitats used by Neotropical migratory birds. The direct effects of proposed activities on these bird species were better described.

Information Sources

The effects on Neotropical migrants are discussed via analysis presented in this chapter in the sections on "Old Growth Habitat and Old Growth Associated Species," "Snags and Downed Wood Material Wildlife Habitat," and "Riparian and Wetland Wildlife Habitat." The flammulated owl has a separate section under "Sensitive and Threatened Wildlife Species." No impacts on the peregrine falcon would be expected (Exhibit Rs-23). Wildlife population viability concerns at the Flathead National Forest and larger scales are assessed in Exhibit Rg-1.

Analysis Area

The analysis area for Neotropical migratory birds is the Logan Creek watershed down to the confluence with Good Creek, but excluding the Griffin and Sheppard drainages. This area is the same as the Logan Geographic Unit used for Ecosystem Analysis at the Watershed Scale. At approximately 61,266 acres (96 square miles), it is large enough to include the spring, summer, and fall range of numerous individuals of each of these migratory bird species and is representative of effects of fires, natural tree mortality, timber harvest, and firewood cutting across the landscape. All habitat attributes are distributed across this area, with some natural clumping of features like drier forests, large wetlands, and the large lake. It is sufficiently large to evaluate the ability of the habitat to support these species, but small enough to not obscure effects of the alternatives. All of the actions proposed in the alternatives are contained within this area. A larger-scale assessment was also conducted to address cumulative effects and population viability concerns (Exhibit Rg-1).

Affected Environment

The existing conditions of habitats important for migratory birds are described in the sections of this chapter on "Old Growth Habitat and Old Growth Associated Wildlife Species," "Snags and Downed Woody Material Wildlife Habitat," and "Riparian and Wetland Wildlife Habitat." Additional information is provided for the flammulated owl in a separate part of the section on "Sensitive and Threatened Wildlife Species." Overall, the area provides a considerable diversity of these habitats. Of the 28 species listed as "Birds of Conservation Concern" listed above in Table 3-92, only two (the golden eagle and the pygmy nuthatch) have been documented in the analysis area. Parts of the analysis area that seem to meet their habitat needs were surveyed for the peregrine falcon and the flammulated owl, but none were detected (Exhibits Rs-2 and Rs-23). Most of the others use habitats that are rare or nonexistent in the analysis area, and five others are not expected to occur anywhere in the Flathead National Forest (Exhibit Rn-1).

For more information about wildlife habitat conditions across the Flathead National Forest relevant to Neotropical migrants, see the Final Environmental Impact Statement for the Flathead's LRMP Amendment 21 (USDA 1999a) and Exhibit Rg-1.

Environmental Consequences

Direct and Indirect Effects

Alternative A – No Action

No timber salvage, harvest, or rehabilitation actions are proposed with this alternative. The direct and indirect effects on habitats important for migratory birds are described in the sections of this chapter on "Old Growth Habitat and Old Growth Associated Wildlife Species," "Snags and Downed Woody Material Wildlife Habitat," and "Riparian and Wetland Wildlife Habaitat." Additional information is provided for the flammulated owl in a separate part of the section on "Sensitive and Threatened Wildlife Species." Overall, this alternative would leave habitats across the analysis area to continue with relatively natural processes. Areas with heavy tree mortality and blowdown would provide structural diversity, downfall trees, and a few long-standing snags. Downed logs, shading from snags, and lack of seed sources may delay the recovery of new trees in stands with high levels of dead trees for an additional 10 to 20 years (See the "Vegetation" section of this chapter). In some stands, there would be very little chance for recruitment of large trees. The probability of fire would increase in such areas as dead trees fall and new understory growth contributes fine fuels. Elevated channel erosion is at a higher risk if road reclamation does not occur as proposed, especially those roads proposed in Alternative E. The sediment generated by in-channel erosion, undersized culverts, and existing road locations would be deposited in the broad flood plain and willow complex in Star Meadow.

Alternatives B, C, D, E, and F

For all action alternatives, there will be disturbances and some bird mortality associated with certain proposed activities. Logging and tree felling may cause nest failure and death to both adults and young when activities occur during the nesting season. Because of higher soil moistures in the spring and early summer, most of the logging would occur during other times of the year. However in the warmer and drier habitat types and in lower elevations, logging may overlap with the nesting period. Prescribed burning may also cause bird mortality, depending on a number of factors such as timing, uniformity of fuels, and severity of burning. Mortality of adult songbirds is usually considered minor, but the eggs and young of ground and shrub nesters are vulnerable to spring fires. The majority of the proposed burns would be completed before or after the nesting season.

The direct and indirect effects of the action alternatives on habitats important for migratory birds are described in the sections of this chapter on "Old Growth Habitat and Old Growth Associated Wildlife Species," "Snags and Downed Woody Material Wildlife Habitat," and "Riparian and Wetland Wildlife Habitat." Additional information is provided for the flammulated owl in a separate part of the section on "Sensitive and Threatened Wildlife Species." Most large windfirm live trees and snags would remain standing in all of the harvest and burning units. Removal of smaller-diameter wood, tree planting, and precommercial thinning would accelerate regeneration of green canopy cover. In-channel erosion, which may impact riparian habitats downstream, would most

likely increase with the implementation of Alternative B because it includes the most ground-disturbing activities. In all action alternatives, shrubs would be planted in some harvest units near riparian areas if funding is available. This would enhance feeding and nesting sites for songbirds. The other actions in these alternatives, including watershed and fisheries enhancement measures, are not expected to have negative impacts on migratory birds.

Cumulative Effects

Cumulative effects relevant to migratory birds are described in the sections of this chapter on "Old Growth Habitat and Old Growth Associated Wildlife Species," "Snags and Downed Woody Material Wildlife Habitat," and "Riparian and Wetland Wildlife Habitat." Additional information is provided for the flammulated owl in a separate part of the section on "Sensitive and Threatened Wildlife Species." Saab and Rich (1997) list threats, species, and relevant habitats of concern on the scale of the Columbia River Basin. See Exhibits Rn-1 and Rn-2 for more information about cumulative effects on these species. This species' affected environment described above has been shaped by past and present cumulative effects to this species. These effects would be cumulative to those discussed above for each alternative.

REGULATORY FRAMEWORK AND CONSISTENCY

On January 10, 2001, President Clinton signed Executive Order (E.O.) 13186, "Responsibilities of Federal Agencies To Protect Migratory Birds." On January 7, 2001, the USDA Forest Service and the USDI Fish and Wildlife Service signed a Memorandum of Understanding to complement the Executive Order. This is the most recent effort to carry out the mandate. The 1988 amendment to the Fish and Wildlife Conservation Act mandates the U.S. Fish and Wildlife Service to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973." To carry out this mandate, the U.S. Fish and Wildlife Service published "Birds of Conservation Concern 2002", which recommends that its lists be consulted in accordance with E.O. 13186. The Migratory Bird Treaty Act covers many ground-nesting and shrub-nesting birds. Some migratory birds are covered by state hunting regulations; others are protected by non-game status by the Montana Department of Fish, Wildlife, and Parks.

There are currently no Flathead Forest Plan Standards specific to migratory birds. The flammulated owl and the peregrine falcon are sensitive species, and are discussed in this EIS and in other sections of the Project Record (Exhibits Rs-2, Rs-3, and Rs-23).

Upon review of the information regarding Neotropical migratory birds here and in the project record (Exhibit Rn-1), no substantial loss of migratory bird habitat is expected from the implementation of any of the action alternatives.